REMARKS

This is in response to the Office Action mailed on September 28, 2005. Claims 1, 63-68 and 85-87 were pending in that action. All claims were rejected. With the present response, claim 1 is amended and claims 69-84 are formally withdrawn. The other pending claims remain unchanged.

On page 2 of the Office Action, the Examiner objected to claim 1 indicating that the dependency should be on claim 63 and not claim 62. The Examiner was kind enough to examine claim 1 based on the assumption that it depends on claim 63. Applicant appreciates this consideration and has now amended claim 1 to depend on claim 63 instead of the canceled claim 62. Consideration and entry of this amendment are respectfully requested.

Beginning on page 2 of the Office Action, the Examiner objected to Applicant's drawings. Specifically, the Examiner pointed out that the description of FIGS. 9A, 9B and 9C is not consistent with Applicant's drawings. With the present amendment, the specification has been amended to remedy this inadvertent error. Consideration and entry of this amendment are respectfully solicited.

Beginning on page 3 of the Office Action, the Examiner rejects claims 63-65 and 67-68 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,420,937 (hereinafter referred to as "the Davis reference").

Independent claim 63 recites a computer-implemented method wherein a collection of slope-oriented data is utilized as a basis for determining a quality classification of a portion of an image (emphasis added). It is respectfully submitted that at least this feature is neither taught nor suggested by the cited Davis reference. Applicant has reviewed every passage cited by the Examiner, as well as the passages that were not cited, and

simply sees no indication of slope-oriented data being utilized as a basis for determining a quality classification.

More specifically, the Examiner first cites column 4, lines 1-68. It is respectfully submitted that an aberration check as described in this passage does not involve, in any way, a determination of a quality classification as claimed. In fact, as the reference points out in lines 4-8, if an aberration is detected, tests are conducted to determine the nature of the aberration. As is pointed out in lines 17-19, action is taken based on the nature of the aberration. At no point, is a quality classification ever determined.

The next section cited by the Examiner as teaching or suggesting a determination of a quality classification as claimed in column 5, line 65 through column 6, line 2. This passage describes using slope information to narrow a field of search. Given that the remainder of the Davis reference describes slope information as a tool utilized to describe a data point, it is likely that the passage cited by the Examiner is referring to limiting data comparisons to data that is relevant in terms of corresponding slope information. Regardless, in no way does the cited passage teach or suggest utilizing slope-oriented data as a basis for determining a quality classification of an image portion as claimed.

The next passage cited by the Examiner as teaching or suggesting the use of slope-oriented data as a basis for determining a quality classification as claimed is column 6, lines 30-68. Nothing in this entire passage pertains to any determination of a quality classification. There is a description of dividing a fingerprint image by a grid and determining an average slope of fingerprint elements within various grid blocks. A close examination of the reference in its entirety, however, reveals that the slope information is utilized to describe data

points and is not utilized to determine a quality classification of a portion of an image as claimed.

The next passage cited by the Examiner is column 10, lines 26-35. It is unclear why this passage was cited because it has nothing to do with determining a quality classification. This passage simply describes means for describing features within an image.

The next passage cited by the Examiner is column 11, lines 29-55. This passage simply describes a process for detecting and identifying an aberration. This passage also describes taking action based on the identification of an aberration. In no way do these passages describe determining a quality classification of a portion of an image as claimed?

The next passage cited by the Examiner is column 19, lines 50-65. This passage describes a minutiae table and a slope matrix but does not have anything to do with determining a quality classification based on slope-oriented data.

Finally, the Examiner cites column 20, lines 3-10. In citing this passage, the Examiner points out that the entire Davis invention can be utilized for quality control testing of printed circuit board conductive traces. This has absolutely nothing to do with utilizing slope-oriented data as a basis for determining a quality classification of a portion of an image.

For all of these reasons, it is respectfully submitted that the Davis reference simply fails to teach or suggest utilizing slope-oriented data as a basis for determining a quality classification of a portion of an image. For at least this reason, reconsideration and allowance of claim 63 are respectfully solicited.

Dependent claim 64 is dependent upon independent claim 63 and is believed to be allowable at least for the same reasons discussed above in relation to the independent claim.

Dependent claim 65 depends on independent claim 63 and is also believed to be allowable at least for the same reasons outlined above in relation to claim 63. However, it is also believed that claim 65 teaches a specific element that is neither taught nor suggested by the cited Davis reference. Claim 65 pertains to utilization of a slope representation to determine an additional classification based on a brightness level within a portion of an image. In rejecting this feature, on page 5 of the Office Action, the Examiner points to the Davis reference at column 10, lines 50-62. This passage describes absolutely nothing related to utilizing slope information to determine a classification in terms of a detected brightness level. The Examiner also cites column 10, lines 4-14 and column 11, lines 29-36. These passages also have nothing to do with determining a brightness classification based on slope information.

Claims 67 and 68 are dependent upon independent claim 63 and are believed to be in allowable form at least for their dependence upon what is believed to be an independent claim that is patentably distinguishable from the cited Davis reference.

Beginning on page 6 of the Office Action, the Examiner rejects claims 66 and 1 under 35 U.S.C. §103(a) as being unpatentable over the Davis reference in view of U.S. Patent No. 5,363,453 (hereinafter referred to as "the Gagne reference"). It is respectfully submitted that this combination of references fails to teach or suggest the elements of claims 66 and 1.

Dependent claim 66 recites terminating processing if a quality classification does not meet a predetermined reference threshold. As is evident in the claim upon which claim 66 is dependent, the quality classification is determined based on a collection of slope-oriented data. As was discussed above in relation to claim 63, it is respectfully submitted that the Davis reference fails to teach or suggest determining a quality classification in this manner. It is respectfully submitted that

the Gagne reference does not remedy the failure of the Davis reference to teach such a feature. For at least this reason, it is respectfully submitted that claim 66 is patentably distinguishable from the cited combination of references.

Further, in the rejection of claim 66, the Examiner points out that the Davis reference describes "when an aberration test fails, the next test in the sequence proceeds." The Examiner claims that this passage clearly provides a teaching as to how a system can be programmed to perform a quality check. In reality, however, the test described in the Davis reference has nothing to do with evaluating quality but instead has to do with identifying the nature of an aberration. The Examiner goes on to assert that it is known to temporarily terminate processing if a quality classification does not meet a predetermined reference threshold. Applicant does not necessarily submit to this fact but points out that there is still no evidence in the record of such an interruption being based on a quality classification derived from slope-oriented data. For this additional reason, it is respectfully submitted that claim 66 is in allowable form.

Claim 1 is dependent upon claim 63 and is believed to be allowable at least because the cited references fail to teach or suggest utilizing slope-oriented data as a basis for determining a quality classification of a portion of an image. In addition, however, claim 1 recites creating a wire frame image. In rejecting claim 1, the Examiner points not to the proposed combination but instead only the Davis reference. Interestingly, at column 6, lines 25-32, it specifically says that a principle object of the Davis reference is to enable fingerprint processing that does not require a ridge thinning process. Accordingly, the Davis reference specifically teaches away from the elements of claim 1. For at least this reason, it is respectfully submitted that claim 1 is allowable in its present form.

Beginning on page 8 of the Office Action, the Examiner rejects claims 85-87 under 35 U.S.C. §103(a) as being unpatentable over the Davis reference in view of U.S. Patent No. 5,239,590 (hereinafter referred to as "the Yamamoto reference"). It is respectfully submitted that the cited combination of references fails to teach or suggest the elements of claim 85-87.
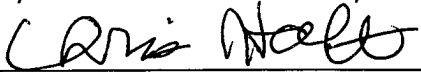
Claim 85 is an independent claim and recites a method that includes determining a quantified quality classification based on a determined number of pixels located within a pixel grid. Near the bottom of page 8, the Examiner states that the Davis reference teaches these elements of claim 85. Applicant has reviewed the Davis reference in its entirety and sees no sign of the features attributed by the Examiner to the reference. Notably, the Examiner provides no citation to any relevant portion of the reference. For at least this reason, it is respectfully submitted that claim 85 is patentably distinguishable from the cited combination of references.

Claims 86 and 87 depend on independent claim 85 and are believed to be patentable for at least the same reasons as the independent claim is believed to be patentable.

In summary, it is respectfully submitted that claims 1, 63-68 and 85-87 are patentably distinguishable from the references cited against them. Accordingly, reconsideration and allowance of these claims are respectfully solicited.

The Director is authorized to charge any fee deficiency required by this paper or credit any overpayment to Deposit Account No. 23-1123.

Respectfully submitted,
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